Guidelines for Estimating
Equine Ranching Costs (PMU)
Based on 100 mares on line

Date: September, 2002

This publication is intended to provide a budget format for an Equine Ranching (formally referred to as PMU) enterprise. The cost figures listed in this budget are estimates based on accepted production practices and current market conditions. Adjustments will be necessary when applying these figures to your own enterprise.

Manitoba has Canada's largest herd of mares used for pregnant mare urine collecting. The Manitoba PMU industry contributes about $40 - 50 million in farm cash receipts to the provinces economy each year.

The assumptions on which the costs are based are outlined in the supporting pages. Productivity and performance assumptions are based on data supplied by specialists as well as data collected from numerous herds. Where individual herd productivity and performance levels differ from those listed producers are encouraged to substitute their own figures in the attached budget to develop their own cost of production.

Accurate up to date production and financial information is essential for the effective application of these guidelines to an individual operation. It is extremely important for farm managers to do detailed calculations when estimating the amount of capital required to finance inputs, livestock purchases', equipment and buildings.

Disclaimer: This budget is only a guide and is not intended as an in depth study of the cost of production of the Manitoba Equine industry. Interpretation and utilization of this information is the responsibility of the user. If you require assistance with developing your individual budget, please contact your local MAF Farm Management Specialist or Regional Livestock Specialist.

Equine Ranching (PMU) Budget - September, 2002

(based on 100 mares on line)

	$/Mare	$/Gram	Your Costs
A. OPERATING COSTS			
1. Feed Costs			
1.01 Timothy	$49.50	$0.41	
1.02 Straw	$12.38	$0.10	
1.03 Alfalfa/Brome Hay	$165.69	$1.38	
1.04 Grain (Oats)	$66.63	$0.56	
1.05 Salt Mineral Mix	$28.28	$0.24	
Total Feed Costs	**$322.48**	**$2.69**	
2. Other Operating Costs			
2.01 Bedding	$43.75	$0.36	
2.02 Herd Health	$109.92	$0.92	
2.03 Insurance Costs	$38.04	$0.32	
2.04 Maintenance & Repairs	$28.50	$0.24	
2.05 Pasture Costs	$134.66	$1.12	
2.06 Utilities	$20.00	$0.17	
2.07 Trucking Costs	$27.40	$0.23	
2.08 Manure removal	$12.00	$0.10	
2.09 Miscellaneous Costs	$20.00	$0.17	
2.10 Death loss	$22.85	$0.19	
Subtotal Operating Costs	$779.60	$6.51	
2.11 Interest on Operating	$28.26	$0.24	
Total Operating Costs	**$807.86**	$6.73	
B. FIXED COSTS			
3. Depreciation			
3.01 Buildings	$133.78	$1.11	
3.02 Machinery & Equipment	$36.45	$0.30	
4. Investment			
4.01 Buildings	$73.93	$0.62	
4.02 Machinery & Equipment	$11.14	$0.09	
4.03 Drylot	$20.00	$0.17	
4.04 Breeding Herd	$121.75	$1.01	
Total Fixed Costs	**$397.05**	**$3.30**	
Total Operating & Fixed Costs	**$1,204.91**	**$10.03**	
C. Labour			
5.01 In barn & drylot	$144.00	$1.20	
5.02 On pasture	$12.50	$0.10	
Total Labour Costs	**$156.50**	**$1.30**	
Total Cost Of Production	**$1,361.41**	**$11.33**	
D. Cull Sales	-$141.87	-$1.18	
Net Total Cost Of Production	**$1,219.54**	**$10.15**	

Disclaimer: This budget is only a guide and is not intended as an indepth study of the cost of production of this industry. The interpretation and utilization of this information is the responsibility of the user. No liability for decisions based on this publication is assumed.

EQUINE RANCHING (PMU)
ASSUMPTIONS:

Mares on line	**100**	mares
Studs	**7**	studs
Dry Mares	**20**	dry mares
2-year old replacements	**10**	2 yrs
Yearlings	**10**	yearlings
Annual Production/Mare (grams)	**120**	grams/mare
Price per gram	**$17.10**	$/gram
Mortality - Mares & Studs (%)	**1.0**	%
Replacement rate of Herd (%)	**8.0**	%
Foal Crop %	**85.0**	%
Mare culling value	**$420.00**	/culled mare
Mare culling weight	**1,400**	lbs
Stud culling value	**$510.00**	/culled stud
Stud culling weight	**1,700**	lbs
Commission (Mares & studs)	**$12.00**	/head
Foal culling value	**$150.00**	/foal
Foal culling weight	**500**	lbs
Commission (Foals)	**$5.00**	/foal
Trucking Cost	**$1.25**	/cwt
Turn out bonus	**$0.90**	$/gram

Feeding Requirements and Ingredient Costs

Feeding Schedule	Period	Days
Producing Mares		
On line	October - March	**165**
Drylot	March - May	**75**
Pasture	June - September	**125**
Dry Mares & 2 yr olds		
Drylot	October - May	**240**
Pasture	June - September	**125**
Studs		
Drylot	August - May	**300**
Pasture	June - August	**65**
Yearlings		
Drylot	August - May	**240**
Pasture	June - August	**125**

DAILY AMOUNT FED (lbs per day)

	Grass Hay	Alfalfa Brome	Straw	Oats	Salt & Min Mix
On line					
Producing Mares	12.0	0.0	6.0	7.0	0.2
Drylot					
Producing Mares	0.0	37.0	0.0	0.0	0.2
Dry Mares & 2yr olds	0.0	25.0	0.0	0.0	0.2
Studs	0.0	28.0	0.0	2.0	0.2
Yearlings	0.0	15.0	0.0	3.0	0.1

TOTAL AMOUNT FED (TONS)

	Grass Hay	Alfalfa Brome	Straw	Oats	Salt & Min Mix
On line					
Producing Mares	99.0	0.0	49.5	57.8	1.7
Drylot					
Producing Mares	0.0	138.8	0.0	0.0	0.8
Dry Mares & 2yr olds	0.0	90.0	0.0	0.0	0.7
Studs	0.0	29.4	0.0	2.1	0.2
Yearlings	0.0	18.0	0.0	3.6	0.1
Total	99.0	276.2	49.5	63.5	3.5

FEED	PRICE
Oats	**$105.00** /ton
Alfalfa/Brome Hay	**$60.00** /ton
Timothy	**$50.00** /ton
Salt-Mineral Mix	**$22.55** /55 lb bag
Straw	**$25.00** /ton

EQUINE RANCHING (PMU) BUDGET WORKSHEET

A. OPERATING COSTS

				Your Cost
1. FEED COSTS				
1.01 Grass Hay				
Producing Mares				
		165	days	_____
	x	12.0	lbs grass hay/day	_____
	x	$50.00	$/ton	_____
	÷	2,000	lbs /ton	_____
	=	**$49.50**	**/mare on line**	_____
1.02 Straw				
Producing Mares				
		165	days	_____
	x	6.0	lbs straw/day	_____
	x	$25.00	/ton	_____
	÷	2,000	lbs /ton	_____
	=	**$12.38**	**/mare on line**	_____
1.03 Alfalfa/Brome Hay				
Producing Mares				
		75	days	_____
	x	37.0	lbs hay/day	_____
	x	$60.00	/ton	_____
	÷	2,000	lbs /ton	_____
	=	$83.25	/mare on line	_____
Dry Mares & 2 year olds				
		30	dry mares & 2 year olds	_____
	x	240	days	_____
	x	25.0	lbs hay/day	_____
	x	$60.00	/ton	_____
	÷	2,000	lbs /ton	_____
	÷	100	mares on line	_____
	=	$54.00	/mare on line	_____

Studs

7	studs	
x 300	days	
x 28.0	lbs hay/day	
x $60.00	/ton	
÷ 2,000	lbs /ton	
÷ 100	mares on line	
= $17.64	/mare on line	

Yearlings

10	yearlings	
x 240	days	
x 15.0	lbs hay/day	
x $60.00	/ton	
÷ 2,000	lbs /ton	
÷ 100	mares on line	
= $10.80	/mare on line	

Total Cost =	**$165.69**	**/mare on line**

1.04 Grain (Oats)

Producing Mares

165	days	
x 7.0	lbs grain/day	
x $105.00	/ton	
÷ 2,000	lbs /ton	
= $60.64	/mare on line	

Studs

7	studs	
x 300	days	
x 2.0	lbs grain/day	
x $105.00	/ton	
÷ 2,000	lbs /ton	
÷ 100	mares on line	
= $2.21	/mare on line	

Yearlings

10	yearlings	
x 240	days	
x 3.0	lbs grain/day	
x $105.00	/ton	
÷ 2,000	lbs /ton	
÷ 100	mares on line	
= $3.78	/mare on line	
Total Cost = $66.63	**/mare on line**	

1.05 Salt Mineral Mix

Producing Mares

240	days	
x 0.2	lbs mix/day	
x $22.55	/bag	
÷ 55	lbs /bag	
= $19.68	/mare on line	

Dry Mares & 2 year olds

30	dry mares & 2 year olds	
x 240	days	
x 0.2	lbs mix/day	
x $22.55	/bag	
÷ 55	lbs /bag	
÷ 100	mares on line	
= $5.90	/mare on line	

Studs

7	studs	
x 300	days	
x 0.2	lbs mix/day	
x $22.55	/bag	
÷ 55	lbs /bag	
÷ 100	mares on line	
= $1.72	/mare on line	

Yearlings

	10	yearlings	
x	240	days	
x	0.1	lbs mix/day	
x	$22.55	/ton	
÷	55	lbs /ton	
÷	100	mares on line	
=	$0.98	/mare on line	
Total Cost =	**$28.28**	**/mare on line**	

2. OTHER OPERATING COSTS

2.01 Bedding

	1.75	tons/on-line mare	
x	$25.00	$/ton	
=	**$43.75**	**/mare on line**	

2.02 Herd Health

De-worming (Ivomec)

	200	treatments (on line mares)	
+	20	treatments (dry mares)	
+	14	treatments (studs)	
÷	60	treatments (replacements)	
=	294	treatments (herd)	
x	$10.00	$/treatment	
÷	100	mares on line	
=	$29.40	/mare on line	

West Nile Virus

	$50.00	$/treatment	
x	22	treated	
÷	100	mares on line	
=	$11.03	/mare on line	

Sleeping sickness

	120	treatments (all mares)	
+	20	treatments (replacements)	
=	140	treatments (herd)	
x	$3.00	$/treatment	
÷	100	mares on line	
=	$4.20	/mare on line	

Rhino abortion treatment

	240	treatments (all mares)	_____
x	$13.00	$/treatment	_____
÷	100	mares on line	_____
=	$31.20	/mare on line	_____

Pregnancy Check

	$3.50	Pregnancy check ($/hd)	_____
x	120	Mares checked	_____
÷	100	mares on line	_____
=	$4.20	/mare on line	_____

Semen Check

	$77.00	Semen check ($/hd)	_____
x	$7.00	Studs checked	_____
÷	100	mares on line	_____
=	$5.39	/mare on line	_____

Veterinary services

Professional services:

	$100.00	/hour charge	_____
x	20.0	hours	_____
÷	100	mares on line	_____
=	$20.00	/mare on line	_____

Transportation:

	$0.90	$/km charge	_____
x	100	kilometres	_____
x	5	visits	_____
÷	100	mares on line	_____
=	$4.50	/mare on line	_____

Total Cost	**=**	**$109.92**	**/mare on line**

2.03 Insurance Costs

Building and Equipment

	$322,140	buildg & equip investment
x	$0.60	cost/$100 capital
÷	100	/ $100
÷	100	mares on line
=	$19.33	/mare on line

Breeding Herd

	$243,500	herd investment
x	$0.75	cost/$100 capital
÷	100	/ $100
÷	100	mares on line
=	$18.26	/mare on line

Additional Coverage

	$45.00	added coverage for liability
÷	100.0	mares on line
=	$0.45	/mare on line

Total Cost	**=**	**$38.04**	**/mare on line**

2.04 Maintenance & Repairs

	$1,000.00	buildings/year
+	$1,000.00	equipment/year
+	$850.00	wash & disinfect/year
÷	100	mares on line
=	**$28.50**	**/mare on line**

2.05 Pasture Costs

	$9,375	producing mares
+	$2,813	dry mares & 2 yr olds
+	$341	studs
+	$938	yearlings
÷	100	mares on line
=	**$134.66**	**/mare on line**

2.06 Utilities

	$2,000	$/yr	
÷	100	mares on line	
=	**$20.00**	**/mare on line**	

2.07 Trucking Costs

Pasture trucking

	137	head pastured	
x	$20.00	custom rate /head	
÷	100	mares on line	
=	**$27.40**	**/mare on line**	

2.08 Manure removal

	$1,200	$/yr	
÷	100	mares on line	
=	**$12.00**	**/mare on line**	

2.09 Miscellaneous Costs

	$2,000	$/yr	
÷	100	mares on line	
=	**$20.00**	**/mare on line**	

2.10 Death Loss

	$204,000	Mare value	
+	$24,500	Stud value	
x	1.0	% death loss	
÷	100	mares on line	
=	**$22.85**	**/mare on line**	

2.11 Interest on Operating

Operating Interest is charged on one half of the subtotal operating costs

	$779.60	Subtotal operating costs	
÷	2		
x	7.25	% operating interest rate	
=	**$28.26**	**/mare on line**	

CAPITAL INVESTMENT

Buildings				
PMU Barn; 76' X 130' @ $28/ft2				
Barn (100 stalls)			$276,640	
Loose housing			$5,000	
Total Building Cost			**$281,640**	
Machinery & Equipment				
Feed & Water System			$8,000	
Halters			$1,000	
Collection Equipment			$5,000	
Tank & Cooler			$6,500	
Tractor & Loader			$20,000	
Total Machinery & Equipment Cost			**$40,500**	
Land Cost				
Drylot Value (quarter section)			**$40,000**	
Breeding Herd Investment				
Mares	120@	$1,700 /Mare	$204,000	
Studs	7@	$3,500 /Stud	$24,500	
2 year olds	10@	$1,000 /2 yrs	$10,000	
Yearlings	10@	$500 /Yrlg	$5,000	
Total Breeding Herd Investment			**$243,500**	
TOTAL CAPITAL INVESTMENT			**$605,640**	

B. FIXED COSTS

3. Depreciation

Depreciation costs are based on:

$$\frac{\text{Original Value - Salvage Value}}{\text{Useful Life}}$$

3.01 Buildings:

	$281,640	original value
-	$14,082	salvage value
+	20	useful life (yrs.)
÷	100	mares on line
=	**$133.78**	**/mare on line**

3.02 Machinery & Equipment

	$40,500	original value	_____
-	$4,050	salvage value	_____
÷	10	useful life (yrs.)	_____
÷	100	mares on line	_____
=	**$36.45**	**/mare on line**	_____

4. Investment:

Investment Cost is Calculated:

$$\frac{\text{Original Value + Salvage Value}}{2} \times \text{Investment Rate}$$

4.01 Buildings

	$281,640	original value	_____
+	$14,082	salvage value	_____
÷	2	average	_____
x	5.0	% investment rate	_____
÷	100	mares on line	_____
=	**$73.93**	**/mare on line**	_____

4.02 Machinery & Equipment

	$40,500	original value	_____
+	$4,050	salvage value	_____
÷	2	average	_____
x	5.0	% investment rate	_____
÷	100	mares on line	_____
=	**$11.14**	**/mare on line**	_____

4.03 Drylot & Paddock

	$40,000	land value	_____
x	5.0	% investment rate	_____
÷	100	mares on line	_____
=	**$20.00**	**/mare on line**	_____

4.04 Breeding Herd

	$243,500	average market value	_____
x	5.0	% investment rate	_____
÷	100	mares on line	_____
=	**$121.75**	**/mare on line**	_____

C. Labour

5.01 In barn & drylot

6.0	hrs/day	_____
x 240	# of days	_____
x $10.00	$ rate/hr	_____
÷ 100	mares on line	_____
= **$144.00**	**/mare on line**	_____

5.02 On pasture

1.0	hrs/day	_____
x 125	# of days	_____
x $10.00	$ rate/hr	_____
÷ 100	mares on line	_____
= **$12.50**	**/mare on line**	_____

D. Cull Sales

Mares Culled

Sales	x	10	mares culled
	-	1	Death loss
	x	$420.00	Cull value
	÷	100	mares on line
	=	$37.80	/mare on line
Trucking		10	mares culled
	-	1	Death loss
	x	1,400	lbs/mare
	x	$1.25	/cwt (trucking cost)
	÷	100	lbs/cwt
	÷	100	mares on line
	=	$1.58	/mare on line
Commission		10	mares culled
	-	1	Death loss
	x	$12.00	$/mare
	÷	100	mares on line
	=	$1.08	/mare on line
Mares Net Cost	=	$35.14	/mare on line

Studs Culled

Sales	x	0.56	studs culled	_____
	-	0.07	death loss	_____
	x	$510.00	cull value	_____
	÷	100	mares on line	_____
	=	$2.50	/mare on line	_____
Trucking		0.56	studs culled	_____
	-	0.07	death loss	_____
	x	1,700	lbs/stud	_____
	x	$1.25	/cwt (trucking cost)	_____
	÷	100	lbs/cwt	_____
	÷	100	mares on line	_____
	=	$0.10	/mare on line	_____
Commission		0.56	studs culled	_____
	-	0.07	death loss	_____
	x	$12.00	$/stud	_____
	÷	100	mares on line	_____
	=	$0.06	/mare on line	_____
Studs Net Cost	=	$2.56	/mare on line	_____

Foals Culled

Sales		85	Total foals born	_____
	-	10	Foals kept	_____
	x	$150.00	Cull value	_____
	÷	100	mares on line	_____
	=	$112.50	/mare on line	_____
Trucking		75	foals culled	_____
	-	1	Death loss	_____
	x	500	lbs/foal	_____
	x	$1.25	/cwt (trucking cost)	_____
	÷	100	lbs/cwt	_____
	÷	100	mares on line	_____
	=	$4.63	/mare on line	_____

Commission		75	foals culled	_____
	-	1	Death loss	_____
	x	$5.00	$/foal	_____
	÷	100	mares on line	_____
	=	$3.70	/mare on line	_____
Foals Net Cost	=	$104.17	/mare on line	_____
Total Cull Sales	**=**	**$141.87**	**/mare on line**	_____

Normal Production Practices

PMU: Mares are placed on line upon reaching an average of 120 days gestation. Expect to have 1/3 of the herd to qualify for production by mid to late October. An additional 1/3 should qualify by mid-November. Expect the barn to be filled with all the mares by early December.

Expect the highest potency during the mid on line production period. Total production may range from 90 - 120 grams shipped per mare on line.

Foals: Potential market may exist for the following:

1. Replacement PMU mare sales;
2. Purebred sales;
3. Recreational sales;
4. Feeder sales.

For further information contact Manitoba Agriculture and Food.

Prepared By:
Peter Blawat
Farm Management Specialist

John Corbey
Farm Management Specialist

Dennis Hodgson
Farm Management Specialist

Ray Salmon
Equine Specialist